<u>**DETAILED ACTION**</u>

Response to Amendments

Applicant's amendments/arguments, see remarks and amendments to claims, filed

10/8/2008, with respect to claims 20 and 31-32 have been fully considered and are persuasive.

Based on the Examiner's Amendment appearing below, this application is now in condition for

allowance.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Mr. David Franklin on 1/9/2009.

Please amend the application as follows:

Claims 1-32 should be amended to the claim language as shown below. Claims 33-42

should be added as shown below.

These amended claims will **replace** claims 1-32 as filed on 10/8/2008:

CANCEL claims 1-16

In claim 17, the amendment filed on 10/8/2008 **has been changed to** --The method of

claim [[16]] 20, the two-dimensional form of the digital media comprising a form generated by a

Short-Time Fourier Transform (STFT) method applied to a time-domain audio signal.—

CANCEL claim 19

In claim 20, the amendment filed on 10/8/2008 **has been changed to** -- A method for

facilitating media watermarking, comprising:

utilizing, at least in part, biased, randomized statistics to determine at least one mark

value for media by generating random areas with a subset of overlapping areas within a two-

dimensional form of the media, randomly assigning an entry value to each random area

utilizing a user key, and determining the mark value at a particular location of the two-

dimensional media form utilizing at least one Bernoulli parameter derived from the random

area entry values;

~~embedding the mark value into at least one location in the media;~~

~~recording the media containing the embedded mark value on a computer-readable storage~~

~~medium; and~~

determining the mark value by determining a number of random areas containing the

particular location, determining a number of random areas containing the particular location

with a first particular entry characteristic, determining a number of random areas containing

the particular location with a second particular entry characteristic, calculating a Bernoulli

parameter based, at least in part, on the first and second particular entry characteristics and a

bias value, and selecting the mark value based on the Bernoulli parameter,

wherein the Bernoulli parameter calculated utilizing at least one equation:

A = B, p(i,j) = drawn uniformly from (1-*p,p*);

where A denotes a number of random areas possessing the first particular entry characteristic,

B denotes a number of random areas possessing the second particular entry characteristic, *p*

denotes a predetermined probability variable, bias denotes the bias value, and p(i,j) denotes

the Bernoulli parameter for location (i,j) within the two-dimensional form of the media[[.]]:

embedding the mark value into at least one location in the media; and

recording the media containing the embedded mark value on a computer-readable storage

medium.--

CANCEL claims 21-23

In claim 24, the amendment filed on 10/8/2008 **has been changed to** --The method of

claim [[15]] 20, the digital media comprising an audio signal.--

CANCEL claim 28

In claim 29, the amendment filed on 10/8/2008 **has been changed to** --A computing

device employing the method of claim [[15]] 20 comprising at least one computing environment

selected from the group consisting of a computer, a server, and a handheld electronic device.--

CANCEL claim 30

In claim 31, the amendment filed on 10/8/2008 **has been changed to** --A method for

facilitating media watermarking, comprising:

utilizing, at least in part, biased, randomized statistics to determine at least one mark

value for media by generating random areas with a subset of overlapping areas within a two-

dimensional form of the media, randomly assigning an entry value to each random area

utilizing a user key, and determining the mark value at a particular location of the two-

dimensional media form utilizing at least one Bernoulli parameter derived from the random

area entry values;

~~embedding the mark value into at least one location in the media;~~

~~recording the media containing the embedded mark value on a computer-readable storage~~

~~medium; and~~

determining the mark value by determining a number of random areas containing the

particular location, determining a number of random areas containing the particular location

with a first particular entry characteristic, determining a number of random areas containing

the particular location with a second particular entry characteristic, calculating a Bernoulli

parameter based, at least in part, on the first and second particular entry characteristics and a

bias value, and selecting the mark value based on the Bernoulli parameter,

wherein the Bernoulli parameter calculated utilizing at least one equation

$$A > B, \ p(i,j) \ = \ \frac{p(A+bias)+(1-p)B}{A+bias+B};$$

where A denotes a number of random areas possessing the first particular entry characteristic,

B denotes a number of random areas possessing the second particular entry characteristic, p

denotes a predetermined probability variable, bias denotes the bias value, and p(i,j) denotes

the Bernoulli parameter for location (i,j) within the two-dimensional form of the media[[.]]:

    embedding the mark value into at least one location in the media; and

    recording the media containing the embedded mark value on a computer-readable storage

medium.--

    In claim 32, the amendment filed on 10/8/2008 **has been changed to** --A method for

facilitating media watermarking, comprising:

    utilizing, at least in part, biased, randomized statistics to determine at least one mark

value for media by generating random areas with a subset of overlapping areas within a two-

dimensional form of the media, randomly assigning an entry value to each random area

utilizing a user key, and determining the mark value at a particular location of the two-

dimensional media form utilizing at least one Bernoulli parameter derived from the random

area entry values;

    ~~embedding the mark value into at least one location in the media;~~

    ~~recording the media containing the embedded mark value on a computer-readable storage~~

~~medium; and~~

    determining the mark value by determining a number of random areas containing the

particular location, determining a number of random areas containing the particular location

with a first particular entry characteristic, determining a number of random areas containing

the particular location with a second particular entry characteristic, calculating a Bernoulli

parameter based, at least in part, on the first and second particular entry characteristics and a

bias value, and selecting the mark value based on the Bernoulli parameter,

wherein the Bernoulli parameter calculated utilizing at least one equation

$$A < B, \text{ then } p(i,j) \ = \ \frac{pA + (1-p)(B + bias)}{A + bias + B};$$

where A denotes a number of random areas possessing the first particular entry characteristic,

B denotes a number of random areas possessing the second particular entry characteristic, p

denotes a predetermined probability variable, bias denotes the bias value, and p(i,j) denotes

the Bernoulli parameter for location (i,j) within the two-dimensional form of the media[[.]];

embedding the mark value into at least one location in the media; and

recording the media containing the embedded mark value on a computer-readable storage

medium.--

ADD claims **33-42** to the claim set filed on 10/8/2008.

-- 33. The method of claim 31, the two-dimensional form of the digital media comprising

a form generated by a Short-Time Fourier Transform (STFT) method applied to a time-domain

audio signal.--

--34. The method of claim 33, the Short-Time Fourier Transform (STFT) comprising a

Modulated Complex Lapped Transformation (MCLT) method.--

--35. The method of claim 31, the digital media comprising an audio signal.--

--36. The method of claim 35, embedding the mark value into the digital media further

comprising:

limiting the mark value embedding locations to a range of audio signal frequencies from 100Hz to 3,000Hz in the audio signal.--

--37. A computing device employing the method of claim 31 comprising at least one computing environment selected from the group consisting of a computer, a server, and a handheld electronic device.--

--38. The method of claim 32, the two-dimensional form of the digital media comprising a form generated by a Short-Time Fourier Transform (STFT) method applied to a time-domain audio signal.--

--39. The method of claim 38, the Short-Time Fourier Transform (STFT) comprising a Modulated Complex Lapped Transformation (MCLT) method.--

--40. The method of claim 32, the digital media comprising an audio signal.--

--41. The method of claim 40, embedding the mark value into the digital media further comprising:

limiting the mark value embedding locations to a range of audio signal frequencies from 100Hz to 3,000Hz in the audio signal.--

--42. A computing device employing the method of claim 32 comprising at least one computing environment selected from the group consisting of a computer, a server, and a handheld electronic device.--

Allowable Subject Matter

Claims 17-18, 20, 24-25, 29, 31-42 are allowed.

The following is an examiner's statement of reasons for allowance: The above mentioned claims are allowable over the prior arts because the CPA (Cited Prior Arts) of record taken singly or in combination fail to anticipate or render obvious the specific added limitations, as recited in independent claims 21, 31, & 32 and subsequent dependent claims.

Regarding claim 21 and subsequent dependent claims, the CPA does not teach or suggest a method of generating a watermark by using randomized statistics and generating random areas to which an entry value corresponding to a user key is randomly assigned, as well as utilizing at least one Bernoulli parameter derived from the random entry values. The CPA further fails to teach or suggest that determining the mark value comprises calculating the Bernoulli parameter from two entry characteristics and a bias value and selecting the mark value based on the Bernoulli parameter calculated utilizing the equation A=B, p(i,j) drawn uniformly from (1-p,p).

Claims 31-32 and subsequent dependent claims are allowable for reasons similar to those set forth for claim 21, however the equations used to calculate the Bernoulli parameter are different.

Regarding claim 31 and subsequent dependent claims, the CPA does not teach or suggest a method of generating a watermark by using randomized statistics and generating random areas to which an entry value corresponding to a user key is randomly assigned, as well as utilizing at least one Bernoulli parameter derived from the random entry values. The CPA further fails to teach or suggest that determining the mark value comprises calculating the Bernoulli parameter

from two entry characteristics and a bias value and selecting the mark value based on the

Bernoulli parameter calculated utilizing the equation A > B, $p(i,j) = \dfrac{p(A+bias)+(1-p)B}{A+bias+B}$.

      Regarding claim 32 and subsequent dependent claims, the CPA does not teach or suggest

a method of generating a watermark by using randomized statistics and generating random areas

to which an entry value corresponding to a user key is randomly assigned, as well as utilizing at

least one Bernoulli parameter derived from the random entry values. The CPA further fails to

teach or suggest that determining the mark value comprises calculating the Bernoulli parameter

from two entry characteristics and a bias value and selecting the mark value based on the

Bernoulli parameter calculated utilizing the equation A < B, then $p(i,j) =$

$\dfrac{pA+(1-p)(B+bias)}{A+bias+B}$.

      Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Nadia Khoshnoodi whose telephone number is (571) 272-3825.
The examiner can normally be reached on M-F: 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the
organization where this application or proceeding is assigned is 703-872-9306.

/Nadia Khoshnoodi/
Examiner, Art Unit 2437
1/10/2009

NK

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2437